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AGRICULTURAL MEMORANDUM NO 717

Average Excess Winter Rains, 1941-1970

L P Smith

Following the lines of Ag Mem 716, and with the same notation the following regression formulae were obtained for average excess winter rain (in inches).

Area	Formula	Multiple Regression	Partial Regression on R	Partial Regression on PT
North above 800 mm				
Upper Quartile	0.038R - 0.45P - 7.96	0.99	0.99	-0.19
Median	0.033R - 0.7P - 2.98	0.99	0.99	-0.32
Lower Quartile	0.028R - 1.05P + 3.72	0.99	0.98	-0.50
North below 800 mm				
Upper Quartile	0.038R - 0.36P - 6.6	0.89	0.89	-0.14
Median	0.034R - 0.74P - 2.17	0.99	0.98	-0.67
Lower Quartile	0.029R - 1.2P + 5.1	0.91	0.88	-0.52
Midlands				
Upper Quartile	0.0325R - 0.96P + 6.0	0.96	0.95	-0.51
Median	0.031R - 0.48P - 4.26	0.98	0.98	-0.44
Lower Quartile	0.03R - 0.47P - 6.92	0.96	0.96	-0.31
East				
Upper Quartile	0.0335R - 1.01P + 5.55	0.85	0.81	-0.57
Median	0.0285R - 0.31P - 5.76	0.90	0.89	-0.35
Lower Quartile	0.028R - 0.27P - 8.15	0.75	0.73	-0.18

(PS. Data was only worked to the nearest inch; this will inhibit accuracy in this dry area, but the variation from area to area is probably due more to chance than to a real climate difference.)

Southeast				
Upper Quartile	0.043R + 0.26P - 22.9	0.98	0.98	0.23
Median	0.034R + 0.14P - 17.2	0.99	0.99	0.20
Lower Quartile	0.027R - 0.16P - 10.0	0.98	0.97	-0.21

Area	Formula	Multiple Regression	Partial Regression on R	Partial Regression on PT
Southwest				
Upper Quartile	0.041R - 0.3P - 12.49	0.98	0.98	-0.17
Median	0.033R - 0.13P - 11.73	0.98	0.98	-0.08
Lower Quartile	0.028R - 13.8	0.96	0.96	0
Wales				
Upper Quartile	0.0335R - 1.4P + 12.54	0.98	0.97	-0.43
Median	0.03R - 1.18P + 8.18	0.99	0.98	-0.50
Lower Quartile	0.027R - 1.14P + 6.93	0.98	0.98	-0.52

Any comments or suggestions on this paper should be referred to the author.

Meteorological Office
Bracknell

February 1975